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EXAMINER	
COFFY, EMMANUEL	
ART UNIT	**PAPER NUMBER**
2157	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/967,307	BATKE ET AL.	
	Examiner	Art Unit	
	Emmanuel Coffy	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. This action is responsive to the amendment filed on April 28, 2005. Claims 1-22 are pending. Claim 22 is amended to depend from independent claim 14 rather than being dependent from claim 10.

Response to Arguments

2. On page 7 of the remarks, fourth amendment applicant asserts that no substantive amendments to the claims are being made herein because the claims are believed to recite subject matter that is readily distinguishable from the disclosure of the cited references. Applicant is advised that 37 CFR § 1.111(c) requires applicant to "clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. The Examiner reiterates the rejections made in the First office action and reminds applicant that the entire cited art is applied against the application at bar not just the citations explicitly made.

In the next paragraph, applicant states that each of the three independent claims (claims 1, 12 and 14), and thereby all pending claims, recite a world wide web interface module that can establish communication from a remote client with an I/O module of an industrial control system without intervention of the controller's PLC.

Col. 2, lines 29-34 of Papadopoulos ('603) disclose:

> It would be desirable to develop an automation control system whereby an user could use general, commercial networks such as the Internet in place of specialized industrialnetworks to remotely monitor automation control devices such as PLCs.

On page 7, paragraph 3 of the remarks, applicant states that; "Since the PLC performs both functions using a single processor, the PLC is burdened whenever a web server task is performed, which is not the case with the claimed invention." In contradistinction to the aforementioned statement, Linder discloses a way to incorporate a web server in a PLC in such a way that the PLC scan rate is not affected by the web server responding to requests by a remote computer for data from the PLC. See col. 2, lines 36-40.

2.1 On page 8, last paragraph of the remarks applicant states: "The Linder et al. patent does not disclose that the Internet is employed to connect the controller with a remote client, especially for purposes of effecting remote control of the controller. On the other hand, the present invention can provide a remote human machine interface to an industrial controller with a direct connection to one or more I/O modules in addition to a connection to the PLC."

> Linder et al. patent discloses allowing remote client access to control information of an industrial control through the Internet. See col. 2, lines 20-25. Specifically, the HTTP server 32 and the file server 20 of the controller 10a communicate ***ladder scan data*** (emphasis added) and display instructions readable by a browser 52 of a remote computer. See col. 4, lines 35-59.

Applicant is advised that the entire art is applied against the application at bar rather than specific cited paragraphs.

2.2 Piecemeal Analysis of references.

Applicant argues that Papadopoulos et al. does not provide the missing teaching and the Brown et al. is likewise believed to be missing the requisite teaching. In response to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Therefore, the rejection is sustained.

2.3 On page 9, fourth paragraph of the remarks applicant states: "Dependent claims 2 and 13 claim an additional feature of the present invention that is not taught by the combination of the Linder et al. and Papadopoulos et al. patents. Specifically, these claims recite that the PLC may submit a command executed by the stored program that restricts the direct writing of data to the I/O module(s).

This argument is persuasive, therefore, the rejection of claims 2 and 13 are withdrawn. However, further search uncovered new art that discloses said limitations. A new ground of rejection is articulated below regarding these two claims while all other rejections remain.

3. Applicant's arguments have been fully considered but they are not persuasive. The dependent and non-amended claims stand rejected as articulated in the First Office Action and all objections not addressed in Applicant's response are herein reiterated.

Claim Rejections - 35 USC § 102

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 4,12, 14 and 15 are rejected under 35 U.S.C. §102(e) as being anticipated by Lindner et al. (US 6,640,140).

Lindner teaches a programmable logic controller for use as part of an industrial control system or as part of n automated system and a corresponding method, the controller including an interface to the Internet, and including a web server allowing a remote computer to access web pages maintained by the controller providing information relevant to the control function of the controller such as control sensor readings and, optionally, information about the status of the control system. (See abstract.)

As to claim 1, Lindner teaches a Web interface module for an industrial control system including a programmable logic controller for executing an industrial control program, the programmable logic controller communicating over a controller network with I/O modules, the I/O modules sending and receiving electrical signals to and from an industrial process, the Web interface module comprising; (See Fig. 1.)

an Internet interface for connecting to a Web accessing communications medium; (See Fig. 1. (70))

a network interface for connecting to the controller network; and (See Fig. 1. (22b, 60))

a processing unit executing a stored program to communicate directly with at least one I/O module and to pass data between the Web accessing communications medium and the I/O module; (See Fig. 1. (11))

whereby communications may be had with the I/O module without intervention of the programmable logic controller. (See col. 3, lines 54-64.)

Claim 4:

As to claim 4, Lindner teaches the Web interface module of claim 1 wherein the processing unit executing the stored program also opens at least one connection on the connected messaging network between the programmable logic controller and the Web interface to transfer data between the programmable logic controller and the interface. (See col. 4, lines 19-59.)

Claim 12:

As to claim 12, Lindner teaches an industrial control system for an industrial control system comprising: (See Fig. 1)

a plurality of I/O modules sending and receiving electrical signals to and from an industrial process; (See Fig.1 (23a, 23b, 23c))

a controller network communicating with the I/O modules; (See Fig. 1. (22b, 60))

a programmable logic controller attachable to the controller network to execute a stored control program to exchange data with the I/O modules over the controller network to control the industrial process; and (See Fig. 1. (70))

a Web interface module including: (See Fig. 1. (30a))

(a) an Internet interface for connecting to a Web accessing communications medium; (See Fig. 1. (33) and Fig. 2)

(b) a network interface for connecting to the controller network; and (See Fig. 1. (22b))

(c) a processing unit executing a stored interface program to communicate directly with at least one I/O module and to pass data between the Web accessing communications medium and the I/O module; (See Fig. 1. (11))

whereby communications may be had with the I/O module without intervention of the programmable logic controller. (See col. 3, lines 54-64.)

Claim 14:

As to claim 14, Lindner teaches an industrial control system for an industrial control system comprising: (See Fig. 1)

a plurality of I/O modules sending and receiving electrical signals to and from an industrial process; (See Fig.1 (23a, 23b, 23c))

a connected messaging network communicating with the I/O modules; (See Fig. 1. (22b, 60))

a programmable logic controller attachable to the controller network to execute a stored control program to open connections and exchange data with the I/O modules over the connected messaging network to control the industrial process; and (See Fig. 1. (10a))

a Web interface module including: (See Fig. 1. (30a))

(a) an Internet interface for connecting to a Web accessing communications medium; (See Fig. 1. (33) and Fig. 2)

(b) a network interface for connecting to the connected messaging network; and (See Fig. 1. (22b))

(c) a processing unit executing a stored interface program to open connections on the connected messaging network between at least one I/O module and the Web interface module and to pass data between the Web accessing communications medium and the I/O module; (See Fig. 1. (11))

whereby communications may be had with the I/O module without intervention of the programmable logic controller. (See col. 3, lines 54-64.)

Claim 15:

As to claim 15, Lindner teaches the industrial control system of claim 14 wherein the processing unit executing the stored interface program also opens at least one connection on the connected messaging network between the programmable logic controller and the Web interface to transfer data between the programmable logic controller and the interface. (See col. 4, lines 19-59.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 7-8, 18-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lindner et al. (US 6,640,140) in view of Papadopoulos et al. (US 6,061,603)

Lindner teaches the invention substantially as claimed including a programmable logic controller for use as part of an industrial control system or as part of n automated system and a corresponding method, the controller including an interface to the Internet, and including a web server allowing a remote computer to access web pages maintained by the controller providing information relevant to the control function of the controller such as control sensor readings and, optionally, information about the status of the control system. (See abstract.)

Claim 7:

As to claim 7, Lindner substantially teaches the Web interface module of claim 1 wherein the processing unit executing the stored program opens connections on the connected messaging network with a plurality of I/O modules and wherein the processing unit includes an I/I image table and wherein the passing of data between the Web accessing communications medium and the I/O module separately reads and writes data between the Web accessing communications medium the I/O image table, and between the I/O modules and the I/O image table; where the transfer of data

between the Web accessing communications medium and the I/O is implemented through the I/O image table. (See Fig. 1)

Lindner fails to address the reads and writes data and the I/O image table. However, Papadopoulos specifically discloses read/write of data at col. 8 Table 1.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the reads and writes data and the I/O image table as taught by Papadopoulos, because this system would afford greater control over remote devices.

Claim 8:

As to claim 8, Lindner substantially teaches the Web interface module of claim 7 wherein the processing unit executing the stored program reads and writes data between the I/O image table and the I/O modules in a predetermined order. (See Fig. 1 (11), col. 4, lines 42-45 – a ladder program is executed rung by rung in a rigid manner).

Lindner does not expressly address the reads and writes data and the I/O image table. However, Papadopoulos specifically discloses read/write of data at col. 8 Table 1.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the reads and writes data and the I/O image table as taught by Papadopoulos, because this system would afford greater control over remote devices.

Claim 18:

As to claim 18, Lindner substantially teaches the industrial control system of claim 14 wherein the processing unit executing the stored interface program opens

connections on the connected messaging network with a plurality of I/O modules and wherein the processing unit includes an I/O image table and wherein the passing of data between the Web accessing communications medium and the I/O module separately reads and writes data between the Web accessing communications medium and the I/O image table, and between the I/O modules and the I/O image table; where the transfer of data between the Web accessing communications medium and the I/O is implemented through the I/O image table. (See Fig.1 (22b, 60)).

Lindner does not expressly address the reads and writes data and the I/O image table. However, Papadopoulos specifically discloses read/write of data at col. 8 Table 1.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the reads and writes data and the I/O image table as taught by Papadopoulos, because this system would afford greater control over remote devices.

Claim 19:

As to claim 19, Lindner substantially teaches the industrial control system of claim 18 wherein the processing unit executing the stored interface program reads and writes data between the I/O image table and the I/O modules in a predetermined order. (See Fig. 1 (11), col. 4, lines 42-45 – a ladder program is executed rung by rung in a rigid manner).

Lindner does not expressly address the reads and writes data and the I/O image table. However, Papadopoulos specifically discloses read/write of data at col. 8 Table 1.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the reads and writes data and the I/O image table as taught by Papadopoulos, because this system would afford greater control over remote devices.

6. Claims 2, and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lindner et al. (US 6,640,140) in view of Ichimura Katsuhiko (JP10-011325).

Claim 2:

As to claim 2, Lindner substantially teaches the Web interface module of claim 1 wherein the processing unit also executes the stored program to receive a write disable command from the programmable logic controller causing the stored program to allow direct reading of data from the I/O module but not direct writing of data to the I/O module; whereby conflicting writing of data to the I/O module is prevented. (See col. 4, lines 35-45.)

Lindner does not expressly address the reading and writing of data. However, Ichimura specifically discloses read/write of data. (See Solution on page 1.)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the reading and writing of data as taught by Ichimura, because this system would afford greater control over remote devices.

Claim 13:

As to claim 13, Lindner substantially teaches the industrial control system of claim 1 wherein the processing unit also executes the stored program to receive a write

disable command from the programmable logic controller causing the stored interface program to allow direct reading of data from the I/O module but not direct writing of data to the I/O module; whereby conflicting writing of data to the I/O module is prevented. (See Fig.1.)

Lindner does not expressly address the reading and writing of data. However, Ichimura specifically discloses read/write of data. See Solution.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the reading and writing of data as taught by Ichimura, because this system would afford greater control over remote devices.

7. Claims 5 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lindner et al. (US 6,640,140) in view of Brown et al. (US 6,542,925.)

Lindner teaches the invention substantially as claimed including a programmable logic controller for use as part of an industrial control system or as part of n automated system and a corresponding method, the controller including an interface to the Internet, and including a web server allowing a remote computer to access web pages maintained by the controller providing information relevant to the control function of the controller such as control sensor readings and, optionally, information about the status of the control system. (See abstract.)

Claim 5:

As to claim 5, Lindner teaches the Web interface module of claim 1 wherein the connected messaging network is selected from the group consisting of ControlNet, DeviceNet and EtherNet. (See Fig. 1 (22b, 60)) (See also Brown col. 4, lines 31-36.)

Claim 16:

As to claim 16, Lindner teaches the industrial control system of claim 14 wherein the connected messaging network is selected from the group consisting of ControlNet, DeviceNet, and EtherNet. (See Fig. 1 (22b, 60)) (See also Brown col. 4, lines 31-36.)

8. Claims 6, 9-11, 17 and 20-22 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lindner et al. (US 6,640,140) in view of Brown et al. (US 6,542,925.) and in further view of Papadopoulos et al. (US 6,061,603)

Lindner teaches the invention substantially as claimed including a programmable logic controller for use as part of an industrial control system or as part of n automated system and a corresponding method, the controller including an interface to the Internet, and including a web server allowing a remote computer to access web pages maintained by the controller providing information relevant to the control function of the controller such as control sensor readings and, optionally, information about the status of the control system. (See abstract.)

Claim 6:

As to claim 6, Lindner teaches the Web interface module of claim 1 wherein the Web accessing communications medium is selected from the group consisting of a wire cable, and a radio link. (See Fig. 1)

Lindner does not expressly address fiber optic cable. However, Papadopoulos does at col. 4, lines 64-65.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner with the fiber optic cable of Papadopoulos, because this system would be versatile.

Claim 9:

As to claim 9, Lindner substantially teaches the Web interface module of claim 1 wherein the connected messaging network comprises a parallel backplane between the Web interface module and the programmable logic controller and a serial network between the backplane and the I/O modules.

Lindner does not expressly address a serial network as the messaging network. However, Brown specifically discloses such network at col. 4, lines 25-35.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the serial network as taught by Brown, because this system would be versatile.

Neither Lindner nor Brown teaches a parallel backplane. However, Papadopoulos does at col. 4, lines 25-35.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner and the serial network as taught by Brown with the backplane of Papadopoulos, because this system would be versatile.

Claim 10:

As to claim 10, Lindner substantially teaches the features of claim 9 as discussed above. Lindner does not expressly address the network interface of the Web interface module which attaches to the backplane.

However, Papadopoulos specifically discloses such configuration. (See Fig. 2 and Fig. 3.)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the configuration taught by Papadopoulos, because this system would be more robust.

Claim 11:

As to claim 11, Lindner substantially teaches the features of claim 9 as discussed above. Lindner does not expressly address the network interface of the Web interface module which attaches to the serial network.

However, Brown specifically discloses the network interface of the Web interface module which attaches to the serial network at col. 4, lines 25-35.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the serial network taught by Brown, because this system would be versatile.

Claim 17:

As to claim 17, Lindner substantially teaches the industrial control system of claim 14 wherein the Web accessing communications medium is selected from the group consisting of a wire cable, and a radio link. (See Fig. 1)

Lindner does not expressly address fiber optic cable. However, Papadopoulos does at col. 4, lines 64-65.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner with the fiber optic cable of Papadopoulos, because this system would be versatile.

Claim 20:

As to claim 20, Lindner does not teach the industrial control system of claim 14 wherein the connected messaging network comprises a parallel backplane between Web interface module and the programmable logic controller and a serial network between the backplane and the I/O modules.

. However, Brown specifically discloses a serial network as the messaging network at col. 4, lines 25-35.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the serial network as taught by Brown, because this system would be versatile.

Neither Lindner nor Brown teaches a parallel backplane. However, Papadopoulos does at col. 4, lines 25-35.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner and the serial network as taught by Brown with the backplane of Papadopoulos, because this system would be versatile.

Claim 21:

As to claim 21, Lindner does not teach the industrial control system of claim 20 wherein the network interface of the Web interface module attaches to the backplane.

However, Papadopoulos specifically discloses such configuration. (See Fig. 2 and Fig. 3.)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the configuration taught by Papadopoulos, because this system would be more robust.

Claim 22:

As to claim 22, Lindner does not teach the industrial control system of claim 10 wherein the network interface of the Web interface module attaches to the serial network.

However, Brown specifically discloses such network at col. 4, lines 25-35.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the serial network taught by Brown, because this system would be flexible.

Neither Lindner nor Brown teaches network interface of the Web interface module attaches to the serial network. However, Papadopoulos specifically discloses such configuration. (See Fig. 2 and Fig. 3.)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the configuration taught by Papadopoulos, because this system would be more robust.

9. Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Lindner et al. (US 6,640,140) in view of Hauet (US 6,799,077.)

Lindner teaches the invention substantially as claimed including a programmable logic controller for use as part of an industrial control system or as part of n automated system and a corresponding method, the controller including an interface to the Internet, and including a web server allowing a remote computer to access web pages maintained by the controller providing information relevant to the control function of the controller such as control sensor readings and, optionally, information about the status of the control system. (See abstract.)

Claim 3:

As to claim 3, Lindner does not expressly teach the Web interface module of claim 1 wherein the network interface provides a connected messaging protocol.

However, Hauet specifically discloses such network at col. 4, lines 35-45 (IP datagrams.)

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the teachings of Lindner as articulated above with the serial network as taught by Brown, because this system would be versatile.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Coffy whose telephone number is (571) 272-3997. The examiner can normally be reached on 8:30 - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-3997. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Coffy
Patent Examiner
Art Unit 2157

***
EC
July 12, 2005

A. Salad
7/24/05